Contents lists available at ScienceDirect

# Australasian Marketing Journal

journal homepage: www.elsevier.com/locate/amj

# Understanding consumer intention to use mobile services

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### ARTICLE INFO

Article history: Received 1 July 2009 Revised 19 February 2010 Accepted 19 February 2010

Keywords: Mobile services Post-adoption model Intention Driving factors Satisfaction Survey

## ABSTRACT

Given the fast growth of mobile technology services in some countries and the relatively slow growth in others, it is important to understand the factors that contribute to the adoption of these applications in Australia. Drawing from the Technology Acceptance Model, Domestication Research, and Uses and Gratification Research, this study develops a model for consumers' intentions to use mobile services (m-services). The main drivers of consumers' intentions to use m-services are *satisfaction* along with *perceived usefulness*. In addition, this study shows that *perceived ease of use* is a strong predictor of *perceived usefulness*. This study found that *perceived usefulness*, *perceived ease of use*, and *perceived enjoyment* positively affect satisfaction with m-services while *perceived cost* has a negative effect. On a different note, it was proven that *perceived image* does not have a significant impact on customers' satisfaction with m-services. Overall findings of this study provide some contribution to the growing body of research in the area of m-services and provide some assistance to practitioners in formulating better strategies to retain current m-service users.

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#### 1. Introduction

Mobile phones are one of the most widely embraced technological devices in the consumer market. Almost everywhere we go we can see people using mobile phones, not only for making general phone/video calls or using Short Message Services (SMS) but also playing mobile games, downloading music, accessing the Internet and much more. Such advanced mobile applications are generally labelled mobile services (m-services). In this study, an adapted definition of m-services derived from Benou and Bitos (2008) has been utilised. That is, m-services are any application service accessible from mobile phones via wireless and mobile communication networks. M-services incorporate a range of applications. It includes applications that focus on allowing users to seek pleasures (e.g., ringtone downloads), perform financial transactions (e.g., mobile banking), or even search for information (e.g., news alerts, mobile maps). Many individuals would consider that mobile service providers could access plenty of benefits from offering such advanced mobile services to their consumers. However, the mobile industry in Australia has not yet seen the growth that was anticipated (Bhatti, 2007). A recent report released by the Australian Interactive Media Industry Association's study (2009) (Mackay and Weidlich, 2009) highlighted that the use of some m-commerce services has only increased between 12% and 18% amongst survey

respondents between 2008 and 2009. In an endeavour to understand this unexpected growth pattern in Australia, it is imperative to understand the driving factors behind Australian consumers' intentions to use m-services.

Despite the staggering growth patterns in Australia, the use of m-services worldwide has become increasingly popular, thereby influencing a number of researchers to conduct research into this area. Past researchers have explored the implications of mobile commerce for markets and marketing (Balasubraman et al., 2002) investigated value creation in mobile commerce (Anckar and Incau, 2003) and developed business models for mobile commerce (Yuan and Zhang, 2003). Some researchers have also focused on the adoption of mobile commerce services (Bruner and Kumar, 2005; Haddon, 2001; Kargin et al., 2009; Kim et al., 2007; Lu et al., 2008; Nysveen et al., 2005; Pagani, 2004; Pedersen and Ling, 2002; Pedersen, 2005; Rao and Troshani, 2007). However, there is a dearth of research that focuses on customers' satisfaction with and intention to use m-services. As such, this study aims to contribute to this research gap by suggesting and empirically testing a model that formally investigates the relationship between the factors that determine technology usage and concomitantly satisfaction and intention to continue to use m-services. The proposed model is distinct from existing adoption models as it focuses on the post-adoption context and it incorporates both the accelerating and inhibiting factors of m-services usage. Exploring these issues is crucial as it not only provides a better understanding of the behaviours of mobile consumers but it can also assist practitioners in better formulating their marketing strategies to better promote their product offerings.





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The remainder of this paper is organised as follows. Firstly, several theoretical frameworks which explore the adoption of an innovation are presented, followed by the conceptual framework and hypotheses. The research methodology and results of this study are then provided. The final section summarises the findings, outlines the managerial implications, and discusses the limitations and areas of this study that are open for future research.

## 2. Literature review

While a large number of innovation adoption models exist, this study focuses on three theoretical perspectives, namely the Technology Acceptance Model, Domestication Research, and Uses and Gratification Research. These theories are considered the most relevant and applicable for explaining post-adoption behaviour in the context of m-services. A brief explanation on each of these theories is provided below.

#### 2.1. Technology Acceptance Model

The Technology Acceptance Model (TAM) proposed by Davis and Bagozzi (Bagozzi et al., 1992) seems to be the most widely accepted innovation adoption model. This model has been replicated in numerous studies aiming to explore factors affecting individuals' new technology usage intentions (Venkatesh and Davis, 2000). Derived from the Theory of Reasoned Action (Fishbein and Ajzen, 1975) the TAM includes five constructs: perceived usefulness, perceived ease of use, attitude towards use, intention to use, and actual use. This model proposes that (1) perceived usefulness and perceived ease of use have a direct impact on attitude towards using an innovation, while perceived ease of use has a direct influence on perceived usefulness; (2) perceived usefulness alone directly affects intention to use an innovation; (3) attitude towards using an innovation has a direct impact on intention to use such an innovation; and (4) intention to use has a direct influence on actual system use. As this model has gone through extensive validation from many replication studies, researchers have found some limitations that need to be overcome (Rao and Troshani, 2007). Some researchers have extended the original model by adding additional constructs that they felt were more relevant to their studies (e.g., Bhatti, 2007; Gefen et al., 2003; Klopping and McKinney, 2004; McCoy et al., 2005; Nysveen et al., 2005; Sendecka, 2006; Teo et al., 1999; Venkatesh and Davis, 2000). While others have dropped the link between perceived usefulness and perceived ease of use as this relationship has proven to be the least significant (Chen et al., 2004).

#### 2.2. Domestication Research

Domestication Research examines how a new technology is accepted into an individual's everyday life (Pedersen and Ling, 2002; Rao and Troshani, 2007). More specifically, it examines what technology means to an individual and what role it plays in their life (Haddon, 2001). Domestication Research has been employed in a range of studies to investigate how various technologies are accepted into an individual's everyday life. For example, Skog (2002) investigated the importance of mobile phones in the everyday life of Norwegian teenagers. The study found that mobile phones serve as a symbolic and stylistic object. In other words, the design of mobile phones is considered important to their owners because it affects how others view them in society. Another study by Grinter and Eldridge (2001) found that mobile phones serve as a vehicle for hypercoordination. That is, the mobile device can be used by individuals to continuously remain in contact with their peers to coordinate and revise their plans. Given the fact that mobile phones play different roles in everyone's lives, it is crucial to consider Domestication Research when investigating m-services usage intention because the line between using mobile phones for fundamental functions (e.g., making/receiving calls) and for pleasure (e.g., downloading ringtones) is often blurred. Use of Domestication Research in this study allowed for an investigation into the effect of non-utilitarian factors on m-services, which is deemed to be relevant and important in the context of m-services.

#### 2.3. Uses and Gratification Research

Uses and Gratification Research initially emerged in the 1940s when interest in exploring individuals' engagement in various forms of media behaviour started to increase (Jin et al., 2002). Whilst early Uses and Gratification Research focused on mass communication media, current Uses and Gratification Research has been extended to investigate a wide range of technology - from household telephones to mobile phones. This theory postulates that active users seek gratifications in media and technology use based on their individual motivations (Lin, 1996). Different consumers have different motivations for using a particular technology. Previous studies have suggested many underlying motives, both utilitarian and non-utilitarian, for media use, including: ease of use, usefulness, information seeking, relaxation, entertainment, social interaction, escape, companionship, time consumption, status, and other function related motives (Höflich and Rössler, 2001; Leung and Wei, 2000). Examination of these different motivations can help clarify the links between personal characteristics, such as those related to emotional and psychological factors and different uses of technology. Thus, this theory provides a useful theoretical framework for better understanding the underlying motivation of consumers' intentions to use m-services.

#### 3. Conceptual framework

Drawing from the three theoretical perspectives mentioned above, a conceptual model of consumers' intentions to use mobile services was developed. As can be seen from Fig. 1, the proposed model extends the original TAM by including three additional constructs: *perceived enjoyment, perceived image*, and *perceived cost* to reflect the influence of both Domestication Research and Uses and Gratification Research on m-services usage intention. Furthermore, the construct "satisfaction" was deemed to be a better substitute for the construct "attitude towards use" for measuring holistic customer experience because the model focuses on post-adoption behaviour.



Fig. 1. A conceptual model of consumers' intentions to use m-services.

*Perceived usefulness* is one of the fundamental antecedents of innovation usage (Bhatti, 2007; Davis, 1989; Jeyaraj et al., 2006) which is related to the utilitarian value that mobile technology provides to customers. In the context of this study, *perceived usefulness* is defined as the extent to which mobile consumers believe that using m-services will assist with their everyday life. One unique characteristic of m-services is the ubiquity of the service (Boadi et al., 2007). Consumers' being able to access m-services at their own convenience anytime anywhere clearly highlights the usefulness of the service. If consumers understand that they can constantly connect to the service as useful. This in turn will result in satisfaction with the service and increase the likelihood of them using the service. Hence, it is hypothesised that:

**H1:.** Perceived usefulness has a positive effect on customer satisfaction with m-services.

**H2:.** Perceived usefulness has a positive effect on customer intention to use m-services.

Another important motivational influence for consumers' technology usage intention is *perceived ease of use* (Wu and Wang, 2004). Adapted from Davis (1989), this study defines *perceived ease of use* as the degree to which mobile consumers believe that using m-services would be free of effort. Whether or not an individual believes that using m-services would be free of effort is of importance, as there is evidence to suggest that the complexity of technology use will influence overall user satisfaction (Huang et al., 2004). On another note, when consumers experience the simplicity of using m-services, they would promptly realise the benefits of their consumption; and as such the user friendliness of m-services would influence the usefulness of m-services (Venkatesh and Davis, 2000). Thus, it is hypothesised in this study that:

**H3:.** Perceived ease of use has a positive effect on customer satisfaction with m-services.

**H4:.** Perceived ease of use has a positive effect on perceived usefulness.

As previously explained, *Uses and Gratification* Research postulates that consumers seek, not only utilitarian but also non-utilitarian, motives when using a particular technology. In the case of mservices, consumers will encounter hedonic experience which derives from fun and playfulness in using such services (Hoffman and Novak, 1996). A previous study has shown that perceived enjoyment has a positive influence on m-services usage (Höflich and Rössler, 2001). Thus, *perceived enjoyment* may be an important driving factor for using m-services. In the context of this study, *perceived enjoyment* is defined as a reward derived through the use of m-services (Igbari et al., 1996). This study suggests that:

**H5:.** Perceived enjoyment has a positive effect on customer satisfaction with m-services.

When using new innovations that require certain kinds of payment, consumers will normally compare the benefits of using such innovations to its costs (Cheong and Park, 2005). The same analogy applies in the m-services context in which consumers would have to pay relatively high fees for most m-services accessible from their mobile phones. There are some situations whereby consumers may be able to use a few m-services for free but they usually bound by a high monthly mobile phone cap. Consequently, if consumers feel that the perceived benefits obtained from using m-services are lower than the costs of consuming such services (i.e., the subscription/usage costs of m-services), they will be less inclined to use m-services. Hence, it is hypothesised that:

**H6:.** Perceived cost has a negative effect on customer satisfaction with m-services.

Deriving from Domestication Research, perceived image has been found to have a positive effect on behavioural intention (Skog, 2002; Taylor and Harper, 2001). This study defines *perceived image* as "the degree to which use of an innovation is perceived to enhance one's image or social status in one's social system" (Moore and Benbasat, 1991). In the context of this study, *perceived image* is also considered to be an important factor of m-services usage intention since mobile phone users generally uses m-services to create, alter, or preserve a positive image of themselves in relation to others (Rao and Troshani, 2007). It is expected that being able to actualise their self-image through the use of m-services. Thus, it is hypothesised:

**H7:.** Perceived image has a positive effect on customer satisfaction with m-services.

Past research has indicated that customer satisfaction has a positive effect on future repurchase intention (Bitner, 1990; Patterson, 1995). In particular, satisfied consumers will form repurchase intentions while dissatisfied consumers will discontinue their subsequent use (Oliver, 1981). In the context of this study, customers will develop a certain level of satisfaction after using m-services. The more satisfied they are with the m-services they consume, the higher their intention to use such services will be. Thus it is hypothesised that:

**H8:.** Customer satisfaction with m-services has a positive effect on their intention to use m-services.

#### 4. Research methodology

#### 4.1. Survey instrument

All constructs used in this study were measured using at least three items, which is the minimum recommendation by Bhattacherjee (2001), and they were measured on a 7-point Likert scale. All items used in this study (see Appendix 1) were adapted from previous literature when appropriate. Perceived Ease of Use was measured by four items adapted from Nysveen et al. (2005) while Perceived Enjoyment was measured by four items adapted from Brown and Licker (2003). Three items measuring Perceived Cost were adapted from Cheong and Park (2005) whereas Perceived Image was measured by four items adapted from Teo and Pok (2003). To measure customer *satisfaction* and usage *intention* four items were borrowed from Bhattacherjee (2001) and three items from Robinson (2006). The current available items measuring Perceived Usefulness (e.g., Nysveen et al., 2005; Venkatesh and Davis, 2000; Wu and Wang, 2004) did not reflect this study's definition of usefulness in that its focus is on how m-services can make a consumer's life easier due to the ubiquity of the service. Hence, three new items to measure perceived usefulness were developed from relevant literature (e.g., Kim and Kim, 2002; Korgaonkar and Lori, 1999; Kleijnen et al., 2007).

#### 4.2. Data collection

Subjects of this study were recruited from public places, such as in front of train stations, and were recruited from one region in Australia. The researchers approached potential respondents and asked for their willingness to participate in the study. Participants were selected on a convenience basis. At the time of intercept, the researchers asked whether the participant had prior experience with using m-commerce services (i.e., screening question). For the purpose of this study, m-services are any services provided by mobile service providers other than making/receiving ordinary phone calls and sending/receiving SMS. Only after the participant indicated that they had prior experience with m-services did the researchers hand them the paper-based survey and ask them to complete and return the survey to the researcher. The findings revealed that participants used their mobile phones to view weather, news, and horoscopes; access the Internet and mobile TV; download ringtones, mobile games, and check sports scores. 151 responses were collected, but 10 questionnaires were excluded from subsequent analysis due to incomplete answers. Nevertheless, the final sample size was considered adequate, following the parameter estimate ratio of five as suggested by Bentler (1995). Demographic information of respondents is shown in Table 1 below.

#### 5. Analysis and results

Prior to assessing model fit and testing the hypotheses, the construct validity of all seven constructs contained in the proposed

#### Table 1

Sample characteristics.

	Percentage (%)
<i>Gender</i> Male Female	50 50
<i>Age</i> Less than 20 20–24 25 and above	39.3 32.9 27.9
<i>Country of birth</i> Australia and New Zealand Other countries	56.7 43.3
Household income <\$30,000 \$30,001-\$60,000 \$60,001-\$80,000 \$80,001-\$100,000 >\$100,000	46.8 12.2 12.9 10.8 17.3
Highest level of education Year 12 Bachelor degree Master degree Other	52.8 19.0 12.0 16.2

#### Table 2

Measurement model.

Factor	Item(s)	Item loading(s)	Cronbach alpha	Composite reliability	AVE
Usefulness	Get necessary information when needed Makes life easier	0.79 0.83	0.80	0.80	0.66
Ease of use	Easy to use Clear and understandable interaction Easy to make the services do what I want it to do Easy to learn	0.86 0.85 0.83 0.76	0.89	0.90	0.68
Image	Prestige image Trendy image Improvement of self-image	0.87 0.89 0.62	0.83	0.84	0.64
Enjoyment	Entertaining Fun Enjoyable Pleasant	0.88 0.90 0.78 0.78	0.90	0.90	0.70
Cost	The price level of using privileged services is expensive The consuming price is a burden Using mobile commerce services is expensive overall	0.93 0.86 0.76	0.88	0.89	0.73
Satisfaction	Pleased Delighted Satisfied	0.72 0.81 0.85	0.83	0.84	0.63
Intention	I intend to use mobile commerce in the next few months I plan to use mobile commerce in the next few months I predict that I would use mobile commerce in the next few months	0.94 0.95 0.96	0.97	0.97	0.90

model was assessed via Confirmatory Factor Analysis (CFA) using AMOS 17.0. Each scale item was modelled as a reflective indicator of its hypothesised latent construct. These seven constructs were allowed to covary in the CFA measurement model and the maximum likelihood approach was chosen as the model estimation method. After running the model, several items with low item loadings were excluded from further analysis.

A scale validity assessment was then conducted by examining the goodness-of-fit of the overall CFA measurement model. For the current model, the  $\chi^2/df = 1.91$ , CFI = 0.93, TLI = 0.91, and RMSEA = 0.08. These were all within the recommended values, which suggested an adequate model fit (Hu and Bentler, 1999).

Convergent validity assessment was evaluated through the assessment of item loading, the construct reliability, and the Average Variance Extracted (Fornell and Larcker, 1981; Kline, 2005). As can be seen from Table 2, all loadings were greater than 0.50 and significant at p < 0.01. Table 2 also shows that the construct reliabilities of the constructs ranged between 0.80 and 0.97. Furthermore, the AVE ranged from 0.63 to 0.90. Hence, all three conditions for convergent validity were met.

Discriminant validity of the seven constructs was tested using a stronger test recommended by Fornell and Larcker (1981). That is, the square root AVE for each construct should exceed the factor correlation between that and any other constructs. The factor correlation matrix depicted in Table 3 below, indicated that the largest correlation between any pair of constructs was 0.67 (satisfaction and *perceived enjoyment*) while the smallest square root AVE was 0.80. Hence, the test of discriminant validity was also met.

The eight hypotheses generated from the proposed conceptual model were then examined using the Structural Equation Modelling (SEM) approach, as suggested by Bentler and Bonnett (1980). Similar to the CFA measurement model, each indicator was modelled in a reflective manner and the seven constructs were linked as hypothesised (see Fig. 2). Maximum likelihood was chosen as the model estimation technique.

The goodness-of-fit of the structural model was comparable to the previous CFA measurement model. In this structural model, the  $\chi^2/df = 1.99$ , CFI = 0.92, TLI = 0.90, and RMSEA = 0.08. These fit indices provided evidence of adequate fit between the

	Usefulness	Ease of use	Image	Cost	Enjoyment	Satisfaction	Intention
Usefulness	0.81*						
Ease of use	0.54**	0.83*					
Image	0 17***	0.07	0.80*				
Cost	-0.3	-0.04	-0.01	0.85*			
Enjoyment	0.48**	0.38**	0.24**	$-0.17^{**}$	0.85*		
Satisfaction	0.53**	0.56**	0.20**	-0.36**	0.67**	0.80*	
Intention	0.56**	0.45**	0.154	$-0.24^{**}$	0.58**	0.56**	0.95*

 Table 3

 Factor correlations and square root AVEs.

\* Off-diagonal shows the square root AVE for each respecting construct.

\*\* Correlation is significant at the 0.01 level (2-tailed).

\*\*\*\* Correlation is significant at the 0.05 level (2-tailed).



**Fig. 2.** Analysis of conceptual model<sup>\*</sup>. (<sup>\*</sup>) *Note*: Path significance: a = p < 0.01,  $b = p \le 0.05$ .

hypothesised model and the observed data. As shown in Fig. 2, the path significance of each hypothesised association in the conceptual model and variance explained ( $R^2$  values) by each path was then examined. The next paragraph explains the extent to which the hypotheses are supported.

H1, H3, H5, H6, and H7 investigated whether customer satisfaction is influenced by *perceived usefulness*, *perceived ease of use*, *perceived enjoyment*, *perceived cost*, and *perceived image* respectively. Entering all variables in a single block, it was found that the proposed model explained a significant percentage of the variance in satisfaction ( $R^2 = 0.81$ ). The results revealed that, at the 0.01 significance level, *perceived ease of use* ( $\beta = 0.38$ ), *perceived enjoyment* ( $\beta = 0.65$ ), and *perceived cost* ( $\beta = -0.35$ ) influence customer satisfaction. Furthermore, at the 0.05 level, *perceived usefulness* ( $\beta = 0.19$ ) influences customer satisfaction. However, *perceived image* ( $\beta = 0.04$ ) did not have a significant effect on satisfaction. Hence, only H1, H3, H5 and H6 were supported.

The results also demonstrated that intention to use was significantly related to satisfaction ( $\beta$  = 0.46, p < 0.01). *Perceived usefulness* was also found to predict intention to use significantly ( $\beta$  = 0.30, p < 0.01). Finally, a significant link between *perceived ease* of use and *perceived usefulness* was found. Thus, H2, H4, and H8 were all supported.

## 6. Discussions and conclusions

The aim of this study was to shed light on the set of antecedents that determine customer satisfaction with m-services usage and are therefore considered as important indicators in promoting these services to consumers. In more specific terms, this research advanced the Technology Acceptance Model while utilising Domestication Research, as well as Uses and Gratification Research. This study found that perceived usefulness, perceived ease of use, perceived enjoyment and perceived cost influence customer satisfaction with m-services. While these findings are fairly consistent with previous literature concerning technology adoption, they have unique managerial interpretations. In relation to antecedents, perceived enjoyment is the strongest driver and predictor of satisfaction. This means that if the use of technology arouses positive emotions and feelings in a consumer, the consumer is more prone to experience pleasure as a result of their engagement with the technological advances. M-services aim to provide customers with flexibility of access and use of many applications, however, perceived usefulness of this technology is not regarded by consumers as the main antecedent. Instead, it follows perceived ease of use. Even more, to a large extent, perceived usefulness can be viewed as a derivative of perceived ease of use. Perception that technology is accessible and user-friendly determines its usefulness which in turn influences intention to use m-services. This finding can be interpreted that customers are very demanding and capricious in their expectations of technology; they cannot be lured easily into new technological areas. The level of comfort is important and regarded as a main predictor of the rate of adoption. One of the intriguing findings in this study is that perceived image does not play any role in customer satisfaction. Cultural differences may explain this outcome. Being an individualistic society, Australian consumers do not attach significance to the status of people who use these mobile services. While fifteen years ago mobile phones had a symbolic meaning associated with prestige and status; nowadays it is considered as an ordinary gadget that accompanies nearly every person. This "lost image" can also be extended to applications that customers access via their mobile phones. Customers do not perceive themselves or others who use m-services as exceptional as this technology can be easily replicated via use of different mediums, such as computers and the Internet. Along this line, it can be suggested that alternative mediums are accountable for a customer's perception of the high cost of m-services which impedes their satisfaction with m-services. While the ubiquitous nature of mservices is undoubted, m-services face fierce competition from other similar services that are accessible from the Internet. Therefore, the price of these services often determines customer satisfaction and consequently intention to use. Furthermore, it was found that satisfaction has a significant impact on consumer intention to use m-services. This supports a traditional perspective. which is that attitude positively affects intention (Fishbein and Ajzen, 1975).

In summary, this study provides both theoretical and managerial contributions. For the former, this study extends the growing body of knowledge, particularly in the field of m-services through the advancement of the Technology Acceptance Model. In particular, this study extends the applicability of this model to the postadoption context and highlights the importance of integrating two distinct theoretical perspectives - the Domestication and Uses and Gratification Research - into the context of mobile services. For the latter, this study can provide guidance to practitioners aiming to attract potential users of m-services and maintain enduring relationships with their current users. Firstly, marketers should emphasise the enjoyment capabilities of such services by focusing their advertising messages on emotional appeals of happiness and joy. Also, service providers should highlight how easy it is to use m-services by providing video displays on their website or by offering technical support. Additionally, industry operators should attempt to reduce the cost of m-services by entering into joint partnership licensing agreements, or offering free product trials. Finally, this study's findings indicate that marketers should emphasise the usefulness of m-services in all of their marketing material. However, the focus should be on the user friendliness of mservices.

The primary limitation of this study is the ability to generalise the results to the population, as convenience sampling was employed. Future research should attempt to replicate this study in other settings, such as collecting data from a wider area, to enhance the validity of the proposed model. Future research should also aim to replicate this study with other constructs that have been previously validated as explaining intention to use m-services, such as compatibility or perceived behavioural control (Nysveen et al., 2005; Sendecka, 2006). This will enhance the ability of the model to more thoroughly explain intention to use m-services. Image was not found to be an important factor in this study. However, it has been found to be a key factor influencing usage intention in countries other than Australia, such as Singapore (Teo and Pok, 2003). Thus, future research should continue to investigate the impact that image has on a customer's intention to use m-services by conducting cross-cultural studies. As this study did not distinguish between different types of m-services, other studies should attempt to investigate usage of various m-services. Finally, as this study was only conducted with current m-service users, no insight is offered to industry players for attracting prospective m-service users. Therefore, future research should endeavour to establish which factors affect non-m-service users' intentions to use m-services.

In conclusion, this article proposes a theoretical framework of intention to use m-services in an Australian context which is based on the Technology Acceptance Model, Uses and Gratification Research and Domestication Research. This research untangles specific constructs which provide a deeper perspective on the factors which are essential to consumer's m-services usage. Placing emphasis on the consumer perspective allows us to understand current drivers of m-services consumption which has both theoretical and practical implications.

## **Appendix 1. Measures**

Perceived usefulness	Using mobile services helps me get necessary information when I need it Using mobile services makes my life easier I use mobile services to pass time <sup>*</sup>
Perceived ease of use	-
	It is easy to make mobile services do what I want it to do
	My interaction with mobile services is clear and understandable
	It is easy to use mobile services

Perceived	Using mobile services improves my self-
image	image
	People who use mobile services are trendy
	People who use mobile services have more
	prestige
	People who use mobile services are
	information technology savvy <sup>*</sup>
Perceived cost	I think that using mobile services is
	expensive overall
	I think that the price level of using mobile
	services is a burden to me
	I think that the price level of using special
	(privilege) services or information through
	mobile services is expensive to me
Perceived	Using mobile services is enjoyable
enjoyment	0
0 0	Using mobile services is pleasant
	Using mobile services is fun
	Using mobile services is entertaining
Usage	I intend to use mobile services in the next
intention	few months
	I predict that I would use mobile services in
	the next few months
	I plan to use mobile services in the next few
	months
Customer	I feel pleased with your overall experience of
satisfaction	mobile services use
	I feel delighted with your overall experience
	of mobile services use
	I feel dissatisfied with your overall
	experience of mobile services use
	I feel frustrated with your overall experience
	of mobile services use <sup>*</sup>

\* Items excluded from final model.

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